



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,018	08/22/2003	Andrey Kozyrev	WJT08-0005D1	8991
27512	7590	07/29/2004	EXAMINER	
WILLIAM J. TUCKER 8650 SOUTHWESTERN BLVD. #2825 DALLAS, TX 75206			LEE, BENNY T	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

FILED DATE

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), \_\_\_\_\_ day(s) from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-13 are pending in the application.  
Of the above, claims 11-13 are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☒ Claims 1-9 are allowed.
4. ☒ Claims 10 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☒ Claims 1-13 are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

Art Unit: 2817

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10, drawn to a phase shifter with a bias dome, classified in class 333, subclass 161.
- II. Claims 11-13, drawn to a reflective termination phase shifter, classified in class 333, subclass 161.

The inventions are distinct, each from the other because:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions different modes of operation. Although both inventions pertain to phase shifters, the manner or mode of how phase shift is imparted in invention I is patentably distinct from the manner of how phase shift is imparted in invention II. That is to say, invention I imparts phase shift along a length of transmission line while invention II imparts phase shift via reflective terminations.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with William Tucker on July 6, 2004, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The disclosure is objected to because of the following informalities: Page 1, line 11, note that updated status information for the parent application should now be provided. Page 3, line 27, note that "impedance" (each occurrence) should be correctly spelled as -- impedance --. Page 8, line 18; page 9, line 14; page 12, line 26: note that the numeral "0" should correctly rewritten as the upper case letter --O --. Page 9, lines 6, 7, note that the description of the "Electrodes 82 and 84 also extend around the edges of the waveguide as shown in FIG. 5" is vague in meaning (i.e. no electrodes appear to extend around the edges of the waveguide). Page 10, lines 29, 30, note that it is unclear whether reference to "FIGs. 10 and 11" is appropriate since the labeled elements (138, 140) appear only in "Fig. 10". Page 11, line 4, note that "and cross section view in fig. 11" should be deleted as being unnecessary. Appropriate correction is required.

The disclosure is objected to because of the following informalities: Note that the following reference labels need explicit description relative to the corresponding figure description: fig. 1 (46); fig. 2 (28, 30, 32, 34, 54, 56, 58); Fig. 3 (14, 16, 18, 20, 24, 26); Fig. 4 (80); Fig. 5 (66, 68, 82, 84, 86, 88); fig. 7, all reference labels therein; fig. 8 (60, 76, 78, 80, 132); fig. 9 (80, 90, 92); figs. 10, 11 (160), fig. 10 (156, 158); Fig. 13 (166).

Appropriate correction is required.

The drawings are objected to because in fig. 5, the electrodes (82, 84) extending around the edge of the waveguide, as described at page 9, lines 6, 7 of the specification, does not appear depicted herein. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 10, note that the recitation "combinations thereof" is not adequately supported by the original specification such that one skilled in the art would not have been able to ascertain all intended combinations, therefore preventing one skilled in the art to fully make and use the intended invention without undue experimentation.

The following claims have been found objectionable for reasons set forth below:

In claim 1, seventh paragraph, note that --, wherein the coplanar waveguide -- should be inserted between "film" and "comprises" for a proper characterization.

In claim 1, ninth and tenth paragraphs and claim 5, second and third paragraphs, note that "form" should be rewritten as --provide-- at each occurrence.

In claim 6, note that for " $\text{Al}_2\text{O}_3$ ", note that the numeral "0" should be correctly written as the upper case letter -- O --.

Art Unit: 2817

In claim 10, note that the transitional phrase "comprises one of ..." should be rephrased as to be in a proper Markush format.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kozyrev et al is the parent patent.

Any inquiry concerning this communication should be directed to Benny T. Lee at telephone number (571) 272 1764.

Lee/ds

07/13/04

  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817